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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,667	01/13/2009	Paul Rufo	C0875.70019US02	4608

23628 7590 10/13/2009
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EXAMINER	
ZAREK, PAUL E	

ART UNIT	PAPER NUMBER
1628	

MAIL DATE	DELIVERY MODE
10/13/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/572,667	RUFO ET AL.	
	Examiner	Art Unit	
	Paul Zarek	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) *13-44* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 March 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03/20/2006, 07/20/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

1. Claims 1-44 are currently pending. This is the first Office Action on the merits of the claim(s).

Election/Restrictions

2. Applicant's election without traverse of Group II, drawn to a method of treating a subject having a non-fungal induced mucositis of the distal intestinal tract comprising local administration of an anti-fungal azole compound in the reply filed on 07/22/2009 is acknowledged. The elected species is clotrimazole. Claims 1-12 read on the elected species and elected invention. Claims 13-44 are withdrawn as being drawn to a nonelected invention.

Priority

3. Applicant's claim for the benefit of a prior-filed international application no. PCT/US04/030813 (filed on 09/20/2004), which claims the benefit of provisional application no. 60/504,516 (filed on 09/18/2003) under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e) as follows: Applicant has not properly claimed the benefit of the prior-filed provisional application. To gain the benefit of a prior filed application, "[t]he later-filed application must contain a reference to the prior-filed application in the first sentence(s) of the specification or in an application data sheet, for a benefit claim under

35 U.S.C. 120, 121, or 365(c), and also for a benefit claim under 35 U.S.C. 119(e)." (MPEP 201.11(C)). The effective filing date of the instant application is 09/20/2004.

The Examiner construed the limitation "administering locally to the distal intestinal" as the active compounds reaching to or being delivered to the distal intestinal site unabsorbed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-5, 7-9, 11, and 12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mimura, et al. (Alimentary Pharmacology and Therapeutics, 2002).

6. Claim 1 of the instant application is drawn to a method of treating a subject having non-fungal mucositis of the distal intestinal tract comprising local administration to the distal intestinal tract of the subject a therapeutically effective amount of said anti-fungal azole compound. Claims 3 and 4 limit the cause of non-fungal induced mucositis. Pouchitis reads on Claims 3 and 4. Claim 5 limits the mucositis to be non-microbial induced. Claim 7 limits the subject to human. Claims 8 and 9 limit the anti-fungal compound. Metronidazole reads on Claim 8 and 9. Claims 11 and 12 limit Claim 1 such that an additional, non-azole compound(s), such as an anti-inflammatory or anti-bacterial compound, is also administered to treat mucositis of the distal intestinal tract.

7. Mimura, et al., teach that antibiotics, such as metronidazole, are effective for the treatment of pouchitis (pg 910, col 2, para 4, lines 1-2). Pouchitis can result from restorative proctocolectomy with ileal pouch anal anastomosis (pg 910, col 1, para 1, lines 8-10). Metronidazole is an anti-fungal imidazole compound. Mimura, et al., disclose treating human patients suffering pouchitis with metronidazole and ciprofloxacin, an anti-bacterial compound (pg 911, col 2, para 2, lines 1-4). Metronidazole and ciprofloxacin were administered as tablets and, although not explicitly disclosed, said tablets are interpreted by Examiner to be administered orally. During oral administration of metronidazole and ciprofloxacin some of the drugs would fail to be absorbed and would thus be locally administered to the distal intestinal tract. Therefore, Mimura, et al., anticipate all the limitations of the rejected claims.

8. To the extent that Mimura, et al., do not anticipate all the limitations of Claims 1, 3-5, 7-9, 11, and 12, these claims are rendered obvious by Mimura, et al. (see below).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-9, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mimura, et al. (above).

12. Claims 1, 3-5, 7-9, 11, and 12 were described above. Claims 2 and 6 limit the dose and timing of administration of the anti-fungal azole compound. Claim 10 limits the anti-fungal azole compound to clotrimazole

13. Mimura, et al., was described above. Briefly. Mimura, et al., disclose a method of treating non-fungal induced and non-microbial induced pouchitis comprising administration of metronidazole and ciprofloxacin, an anti-fungal agent. Administration was considered to be local to the distal intestinal tract on the interpretation that not all of the metronidazole was absorbed in the gut, thus leaving some to treat pouchitis. Mimura, et al., does not disclose administering an anti-fungal azole compound directly to the distal intestinal tract, a dose of an anti-fungal azole ranging between about 2,000 mg and about 10,000 mg to be delivered at a frequency of between four times a day to once a week, or administration of clotrimazole as the anti-fungal azole compound.

14. In the event that the nonabsorbed portion of metronidazole is insufficient to treat pouchitis, Mimura, et al., clearly demonstrate that systemic administration of metronidazole is sufficient to treat pouchitis. One of ordinary skill in the art would reasonable expect that direct application of metronidazole to the distal intestinal tract for the treatment of pouchitis would be therapeutic. Mimura, et al., also disclose a dose sufficient to affect therapy for pouchitis (400 or

500 mg b.i.d.). Determining the claimed dosing regimen is considered to be routine optimization of the protocol disclosed by Mimura, et al. Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) (MPEP § 2144.05(II)(A)). Finally, metronidazole and clotrimazole are both azole compounds possessing anti-fungal properties. Thus, they are considered functional equivalents and obvious variants of each other. Therefore, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to treat non-fungal induced mucositis (pouchitis) with an anti-fungal azole compound (i.e. metronidazole or clotrimazole).

Conclusion

15. Claims 1-12 are rejected.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Zarek whose telephone number is (571) 270-5754. The examiner can normally be reached on Monday-Thursday, 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brendon Fetterolf can be reached on (571) 272-2919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PEZ

/San-ming Hui/
Primary Examiner, Art Unit 1628